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DEFENCE AND AEROSPACE
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Finnish Space Industry and Future possibilities

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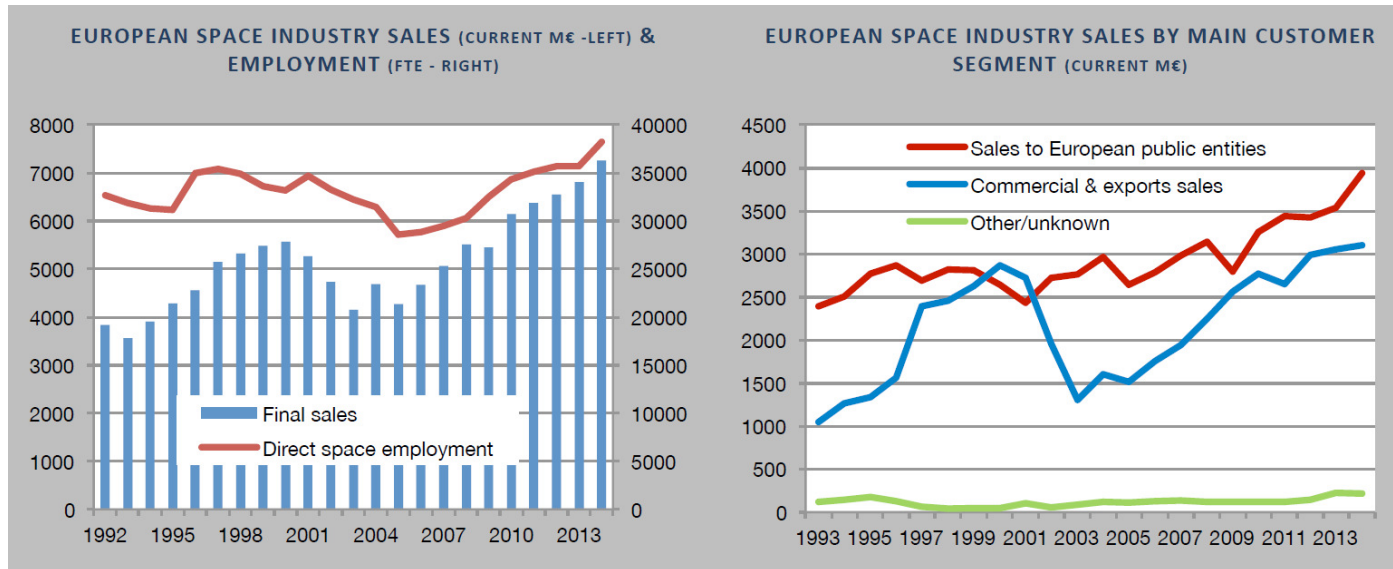


Reaktor

Finnish Space industry today

- Finnish Space industry has delivered its products and services to over 40 satellite programs in its more than 30 years of history
- More than 10 companies delivering products to up-stream market with focus on spacecraft electronics, RF products, software and structures.
- Space sector employees are highly educated with more than 60% have university or higher education degree.
- Survey done by Tekes in 2015 for Finnish companies: showed that approximately 200 out of 800 companies involved in innovation have products, services or processes which would not work without space technology

Finnish Space industry in European Space industry context

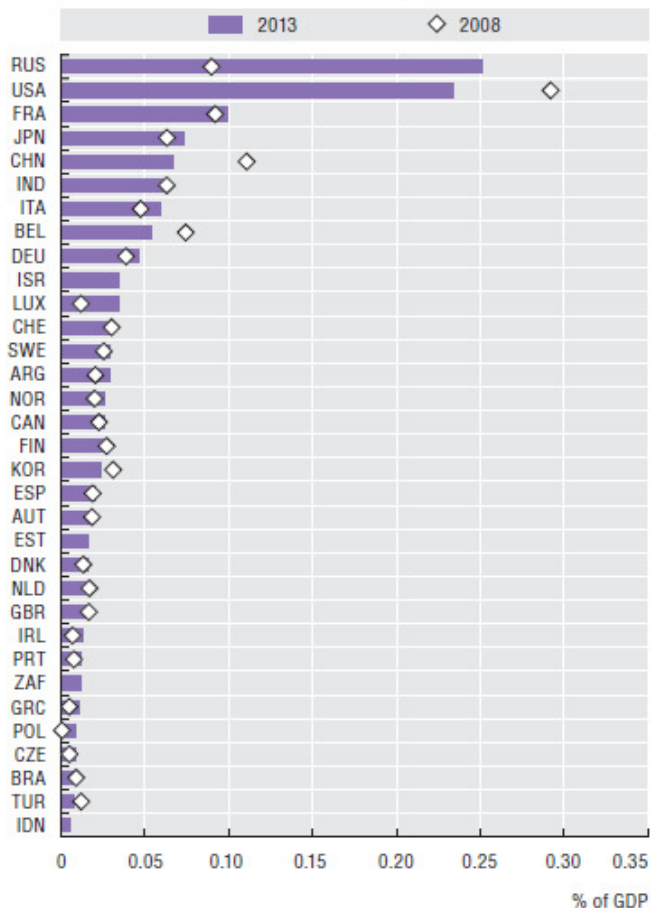


- European Space industry has been constantly growing and increasing its direct employment in the last 10 years.
- Commercial and export sales represents 40-50% of total European space manufacturing services. Institutional customers also important specially for developing products to international markets.

1) Source: Eurospace facts and figures, <http://www.eurospace.org/Data/Sites/1/pdf/factandfigures/simpaper2015final.pdf>

Nordic countries Space funding and ESA participation

3.3. Space budget as a share of GDP for selected countries
% of GDP (based on current USD), 2008 and 2013



Source: OECD calculations based on national data and OECD MEI data.
StatLink <http://dx.doi.org/10.1787/888933141760>

■ Nordic countries ESA funding 2015:

■ Sweden

■ ESA programs budget in 2015, 80 MEUR

■ Norway

■ ESA programs budget in 2015, 60 MEUR

■ Denmark

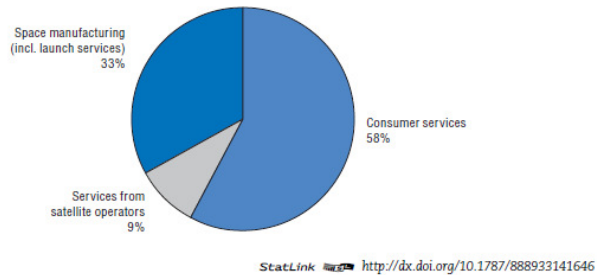
■ ESA programs budget in 2015, 27 MEUR

■ Finland

■ ESA programs budget in 2015, 20 MEUR

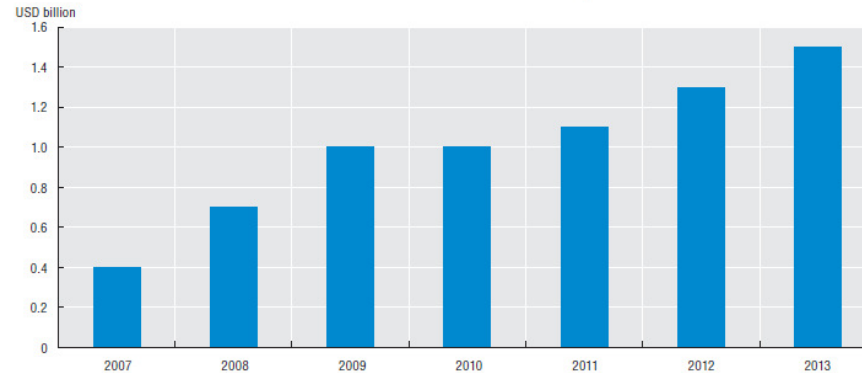
Space industry boosting economic growth and impacting society

Figure 1.1. Main segments of the space economy
Revenues from commercial actors, USD 256.2 billion globally in 2013



THE SPACE ECONOMY AT A GLANCE 2014 © OECD 2014

9.2. Estimates of commercial remote sensing revenues



Source: Adapted from Satellite Industry Association, 2014.

18.3. Selected national assessments of economic returns from space programmes

Country	Selected Findings*	Study Periodicity
Belgium	1 Euro : 1.4 Euros (2010)	Ad-hoc
Denmark	1 Euro : 3.7 up to 4.5 Euros (2008)	Ad-hoc
Ireland	1 Euro : 3.63 (2012)	Ad-hoc
Norway	1 Krone: 4.75 Kroner (2013)	Annual
Portugal	1 Euro : 2 Euros (2011)	Ad-hoc
United Kingdom	1 Pound : 1.91 Pound (2010)	Every two years

- Space manufacturing industry represents 1/3 of total Space economy
- Investments in Space assets have economic returns factors up to 5

NewSpace

More than \$2 Billion Invested in Space Companies since 2012

Source: spacenews.com/

Forbes / Tech

The Little Black

AUG 27, 2015 @ 02:32 PM 2,438 VIEWS

To Infinity And Beyond With Investments:
Rocketing Into Space Investing

VCs Invested More in Space
Startups Last Year Than in the
Previous 15 Years Combined

Source: fortune.com

- Space is coming a commodity which attracts significant private investments for creating new services for different kind of consumers.
- NewSpace will increase the space industry impact to global economic growth along with current space products and services.
- Finnish space industry is also actively seeking opportunities to exploit these new opportunities but also domestic development funding is needed.

Future outlook for Finnish Space industry

- Finland has already long heritage from Space industry and have created wide competence in broad scope of Space products.
- Space investments are showing very good return factors and they are creating economic growth to other industry branches as well.
- Creating commercial success stories more in the future need National and other Institutional support where the aim should be in create equal competitive starting points for the Finnish Space industry.

Few examples of Finnish Space products

